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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,030	02/04/2004	Louay Jalloul	CE08219R D01	3892

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MOTOROLA, INC.
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SCHAUMBURG, IL 60196

EXAMINER

GESESSE, TILAHUN

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/26/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/26/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.Schaumburg@motorola.com
APT099@motorola.com

Office Action Summary

Application No.

10/772,030

Applicant(s)

JALLOUL ET AL.

Examiner

Tilahun B. Gesesse

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 16 is/are allowed.
- 6) ☐ Claim(s) 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 6,125,137) in view of Subramanian (US 6,934,319).

As per claim 11, Wang teaches an apparatus in a communication system (an apparatus as in fig. 4) comprising:

Wang teaches a first signal (see signal BTS of fig. 4 item # 350) processing block (item finger 1) for processing a first received signal (see finger 1 of figure 4, signal received item #107) to produce a first received processed signal (see column 6, lines 60-65 and figure 4).

• Wang teaches a second signal (see figure 4 item #370) processing block (finger 2-N of figure 4) for processing a second received signal to produce a second received processed signal (see column 6, lines 66-column 7, line 15).

Wang teaches a combiner (fig. 4 item #342) for combining signal first and second received processed signal to produce a combined signal (see column 6, line 66-column 7, line 15).

Although Wang suggests cdma2000 and CDMA bands used in the wireless communication, (see column 9, lines 1-4), Wang does not expressly teach a first communication standard and a second communication standard used in the signal process. However, Subramanian teaches plurality protocol demodulator with first communication standard (despreader mode 112a) and despreader mode 112b) used to demodulate received signal (see column 4 , lines 35-56 and figure 2B).

One ordinary skill in the art at the time of the invention would be motivated by Subramanian teaching to modify Wang in order to come up with inclusive demodulating signal processor in order to combat interfering signal. Then, it would have been obvious to process first and second standard of signals, in order to combat interference using different protocols receiving demodulator.

As per claim 12, Chen teaches a decoder (see 359 of fig. 3-4) for decoding the combined signal to retrieve information communicated via the first and second signals (see figs. 3-4).

As per claim 13, Wang teaches the first processing block (see first block items 350 and 370 of fig. 3) comprising:

Wang teaches a desreader (351) desreading the first signal by multiplying the first signal with a first PN sequence compatible to the first communication standard (PN) to produce a first despread signal (see column 6, lines 1-65 and fig. 3).

Wang teaches a traffic channel Walsh code desreader (360) and demodulator to produce a first demodulated signal from the first despread signal (see column 6, lines 1-65 and figures 3-4).

Wang teaches a de-interleaving the first demodulated signal (360) according to a first interleaving/deinterleaving function (358) of the first communication standard to produce the first received processed signal (see column 6, line 45-column 7, line 15 and figure 3).

As per claim 14, Wang teaches the second processing block (see first block items 350 and 370 of figs. 3-4) comprising:

Wang teaches a desreader (351) desreading the first signal by multiplying the first signal with a first PN sequence compatible to the first communication standard (PN) to produce a first despread signal (see column 6, lines 1-65 and fig. 3).

Wang teaches a traffic channel Walsh code desreader (360) and demodulator to produce a first demodulated signal from the first despread signal (see column 6, lines 1-65 and figures 3-4).

Wang teaches a de-interleaving the first demodulated signal (360) according to a first interleaving/deinterleaving function (358) of the first communication standard to produce the first received processed signal (see column 6, line 45-column 7, line 15 and figure 3).

Allowable Subject Matter

3. Claims 15-16 are allowed. The following is an examiner's statement of reasons for allowance: the prior art does not teach a multiplier for scaling the calculated signal energy according the present scaling factor.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 571-272-7879. The examiner can normally be reached on flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899.


The Central FAX Number is 571-273-8300. For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TG

Feb. 10, 2007


TILAHUN GESESSE
PRIMARY EXAMINER